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TWO NORTHEASTERN VERONICAS.

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VERONICA BECCABUNGA.

THE common Brooklime, *Veronica Beccabunga*, of Europe was well known to the older English herbalists as Broklempe or Broklympe and finally as Brooklime, a name which has been the subject of much conjecture among students of English plant-names; and by the German herbalists it was referred to as Bachbunge or Beccabunga. The plant according to Gerard, early in the 17th century, was eaten in salads in the same manner as watercresses, and like them occurred "altogether of his own nature wilde, desiring to grow in waterie places, and such as be continually overflowne, . . . by rivers sides, small running brookes, and waterie ditches."¹ The Brooklime seems now to be in less repute as a salad, for Syme states that "the leaves and young stems of the Brooklime were once in favour as an anti-scorbutic, and even now the young shoots are sometimes eaten as watercresses, the two plants being generally found growing together. They are perfectly wholesome, and might be more frequently employed but for prejudice."² And though the plant is not now of much account in medicine it was, as stated by Syme, highly valued in the 16th and 17th centuries as a remedy for scurvy, and "the leaves boyled, strained, and stamped in a stone mortar with the pouders of Fenugreek, Lineseeds, and roots of marish Mallows, and some hogs grease, unto the forme of a cataplasme or pultesse, taketh away any swelling in leg or arme; wounds also that are ready

¹ Gerard, Herball, ed. Johnson, 621 (1633).

² Syme, Engl. Bot. vi. 170 (1876).

to fall into apostumation it mightily defendeth, that no humor or accident shall happen thereunto.”¹

In the earlier floras of eastern America, such as those of Pursh and Bigelow, we find a plant described as *Veronica Beccabunga*, and under this name the American Brooklime was known until, in 1846, Bentham took up² a manuscript name of Schweinitz's and established the American plant as *Veronica americana*, Schweinitz,³ a species which differs from the European *V. Beccabunga* in its more ascending habit, more pointed leaves, and longer more slender pedicels.

Since the distinctions between the European plant and its commoner American representative were pointed out the name, *Veronica Beccabunga*, has dropped from our literature. It was, therefore, peculiarly interesting to Mr. Emile F. Williams and the writer to find, in August last, the true European Brooklime, *V. Beccabunga*, thoroughly at home about Quebec. During a two-days' visit in that quaint historic region we drove for some miles both south and north to the scenes most accessible to the transient visitor. While following in Wolfe's Cove the famous ascent to the Plains of Abraham we were attracted by a *Veronica* growing perfectly prostrate and repent in the roadside ditch. The plant, with its prostrate and freely branching stems and blunt-oblong or rounded glossy leaves, looked, at first glance, so like a mass of stolons of *Mentha piperita* that it was only upon closer inspection that we realized that we had the Brooklime of European floras. The same plant was later seen in abundance in the brook which empties over a high fall from Spencer Wood into Wolfe's Cove, and it was noted in roadside brooks and ditches as far southward as we drove, through the village of Sillery. The next day, in driving to Montmorenci, we saw the Brooklime

¹ Gerard, l. c.

² Benth. in DC. Prodr. x 468 (1846).

³ In the Synoptical Flora Dr. Gray includes *V. intermedia*, Schweinitz, Am. Jour. Sci. viii. 268 (1824) as a synonym of *V. americana*. The name *V. intermedia*, was published by Schweinitz, in a list of the rarer plants of Easton, Pennsylvania, for a plant "commonly called beccabunga." Were it quite clear that Schweinitz referred to the plant subsequently called by him *V. americana*, the earlier name, *V. intermedia*, would have to be taken for that plant. But according to Bentham (l. c.) the name, *V. Beccabunga*, was often used by early American authors for *V. Anagallis*, and since this species is well known to occur at Easton it is very probable that by *V. intermedia*, Schweinitz referred to *V. Anagallis* and not to *V. americana*.

equally abundant in the village of Beauport, fully eight miles, as the crow flies, from Sillery; and there as elsewhere it grew in "small running brookes, and waterie ditches."

Though *Veronica Beccabunga* is now thoroughly at home about the city of Quebec it was apparently not seen by either Michaux or Pursh¹ in their wide travels through Canada, and it has not apparently been noted by later botanists. In the limited and thickly populated district where it is now known to occur it is associated with many other plants obviously introduced from Europe, and there is no reason to suppose that the European Brooklime is indigenous in Canada. In view of its wide repute in Europe as a remedy for scurvy and other pestilent diseases and its use as a salad during the 17th century, it would be interesting to know whether *Veronica Beccabunga* was intentionally brought to America by the early French settlers of Quebec. If this were the case, however, it is strange that the plant escaped the eyes of both Michaux and Pursh.

VERONICA SERPYLLIFOLIA.

In June, 1898, while botanizing along the Aroostook River at Masardis, Maine, I was impressed by the remarkable development of *Veronica serpyllifolia* in the alluvial soil of the river-terraces. Not only was the plant much larger than any form of *V. serpyllifolia* with which I had been familiar but its flowers, often a quarter inch broad, were deep blue with violet stripes, not the pale or whitish color we know in the small-flowered plant of Massachusetts grasslands and roadsides. At Masardis and, as it proved later, at many other points in the Aroostook and St. John valleys this showy blue-flowered *Veronica* abounded on river-terraces or in rich open woods, often brilliantly coloring the ground for many rods. Like *V. serpyllifolia* this plant of northern Maine had many strongly decumbent branches, but these were frequently quite a foot in height, while the leaves were sometimes a full inch in length. Material of this plant was collected at various points in the valleys and a special watch was kept for the ordinary *V. serpyllifolia* of southern New England. This, however, was not seen, and when, upon returning to Cambridge, the large plant was compared with it, a point of distinction formerly

¹ The *V. Beccabunga* of Pursh, from Pennsylvania to Virginia, was probably *V. americana*.

overlooked was detected in the material. While the ordinary whitish-flowered plant of southern New England had the rachis of the slender raceme and the pedicels minutely puberulent with fine gray hairs, these parts in the blue-flowered plant of the north bore longer viscid hairs.

A comparison with European specimens has shown this blue-flowered glandular plant to be well known to Old World botanists who treat it sometimes as a distinct species, sometimes as a variety of *Veronica serpyllifolia*. The plant was first described in 1794 by Dickson as *Veronica humifusa*,¹ though it had formerly been included by Lightfoot in his *Flora Scotica* as *V. alpina*,² but later treated by him merely as a form of *V. serpyllifolia*.³ To Dickson, in 1794, it was known in the Scotch Highlands only "upon very high mountains, and under wet shady rocks, where the *V. serpyllifolia* never occurs." In 1838, Sir William Hooker, whose discriminating eye detected many plants long since overlooked in America, noted the plant as *V. serpyllifolia*, var. *humifusa*⁴ from the Rocky Mountains. In 1839, Laestadius described the same plant from Lapland as *V. serpyllifolia*, var. *borealis*,⁵ and under this name it was recorded from the Venetian Alps and illustrated by Reichenbach.⁶ By Hooker & Arnott the plant is called *V. serpyllifolia*, var. *alpina*,⁷ while by Babington,⁸ Syme,⁹ and some others it has been taken up as a subspecies under the original name of Dickson.

Since this glandular-hairy blue-flowered plant was originally noted in Maine much herbarium material has been examined and the plant has been watched in the field; and as a result of this study it seems that, while strongly marked in its extreme form, the plant too often approaches the typical *Veronica serpyllifolia* to warrant its separation as a distinct species. As a boreal variety, however, the blue-flowered form is certainly well marked in America, and it should be called *V. serpyllifolia*, var. *humifusa*, Hooker. In fact, the evidence now at hand indicates that this large-flowered variety is the only indigenous form of *V. serpyllifolia* in Northeastern America. The true *V. serpyllifolia*

¹ Dickson, Trans. Linn. Soc. ii. 288 (1794).

² Lightfoot, Fl. Scot. 72.

³ Lightfoot, l. c. 1138.

⁴ Hook. Fl. Bor.-Am. ii. 101 (1838).
(1839).

⁵ Laest. Nov. Act. Soc. Ups. xi. 211

⁶ Ic. Fl. Germ. xx. 44, t. 1718, fig. iv.

⁷ Hook. & Arn. Brit. Fl. ed. 8, 305 (1860).

⁸ Man. Brit. Bot. ed. 5, 249 (1862).

⁹ Engl. Bot. vi. 158, t. 979.

lifolia with small pale flowers and puberulent, not glandular-hairy, racemes occurs commonly from Newfoundland to Ontario and Michigan and south to the Gulf of Mexico, but so far as I have observed in New England and Eastern Canada it is always in the neighborhood of towns, and oftenest in lawns, roadsides and cultivated or old fields. Occasionally it occurs in woodlands but there it is usually by roads or paths where its occurrence suggests possible introduction.

The larger-flowered glandular var. *humifusa*, on the other hand, is perfectly at home in mountain woods and by streams, and in natural meadows far from settlements, and a study of the accumulated material shows it to be the common form in such situations over a broad range. As now known, the plant is found from Labrador and Newfoundland to the White Mountains, and southeastern New York; and from Colorado, Utah and southern California north to Alaska.

GRAY HERBARIUM.

VALERIANELLA IN NEW ENGLAND.

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IN the spring of 1901, through the kindness of Miss Mary F. Crofton, I received a few specimens of a *Valerianella* collected by Miss Edith M. Shelley of Waterford, Connecticut. The immaturity of the material did not admit of a positive determination of the species, and I did not get an opportunity that season to investigate it further. Last June, following Miss Shelley's directions, I visited the locality from which the plants came. The abundant material collected then proves the plant to be *Valerianella radiata* Dufr.

The station is in the town of Waterford on the east bank of Niantic river, which is here salt. The species is abundant on the slope of the gravelly terrace, reaching from just above high-water mark nearly to the top of the bench, and extending along the shore for about a quarter of a mile.

The bank at this point is covered by a low shrubby tangle made up chiefly of poison ivy, grape vines and climbing bitter-sweet, and in the midst of this and especially along its lower edges the *Valerianella* grows freely. Among the other plants associated with it *Triosteum perfoliatum* L. and *Galium Aparine* L. are noticeable.